UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION VII
901 NORTH FIFTH STREET
KANSAS CITY, KANSAS 66101

IN THE MATTER OF	)	Docket No. CWA-07-2008-0047
	)	
TELEX COMMUNICATIONS, INC.	)	
	)	FINDINGS OF VIOLATION
Respondent	)	AND ORDER FOR COMPLIANCE
	)	
Proceedings under Section 309(a)(3) of the Clean Water Act, 33 U.S.C. § 1319(a)(3)	)	

I. PRELIMINARY STATEMENT

1. The following FINDINGS OF VIOLATION are made and the ORDER FOR COMPLIANCE is issued pursuant to the authority vested in the Administrator of the United States Environmental Protection Agency ("EPA"), by Section 309(a)(3) of the Clean Water Act ("CWA"), 33 U.S.C. § 1319(a)(3), as delegated by the Administrator to the Regional Administrator, EPA, Region VII, and further delegated to the Director, Water, Wetlands and Pesticides Division, EPA, Region VII.

2. Respondent, Telex Communications, Inc., operates a manufacturing facility located at 8601 Cornhusker Highway, Lincoln, Lancaster County, Nebraska ("facility").

3. The Nebraska Department of Environmental Quality ("NDEQ") is the state agency with the authority to administer the federal National Pollutant Discharge Elimination System ("NPDES") program in Nebraska pursuant to Section 402 of the Act, 33 U.S.C. § 1342, implementing regulations, and a Memorandum of Understanding. The EPA maintains concurrent enforcement authority with authorized state programs for violations of the CWA.

II. JURISDICTION AND FINDINGS OF FACT

4. Section 301(a) of the CWA, 33 U.S.C. § 1311(a), prohibits the discharge of pollutants except in compliance with, inter alia, Section 402 of the CWA, 33 U.S.C. § 1342. Section 402 of the CWA provides that pollutants may be discharged only in accordance with the terms of a NPDES permit issued pursuant to that Section.

5. Respondent is a "person" as defined by Section 502(5) of the CWA, 33 U.S.C. § 1362(5).

6. Respondent owns and operates a facility that receives and treats wastewater from sanitary and production processes.

7. The facility discharges to Stevens Creek, which flows into Salt Creek which flows into the Platte River.

8. The facility is a "point source" as defined by Section 502(14), 33 U.S.C. § 1362(14) of the CWA.

9. The facility causes the "discharge of pollutants" as defined by Section 502(12) of the CWA, 33 U.S.C. § 1362(12).

10. The facility discharges pollutants into a "navigable water" as defined by Section 502(7), 33 U.S.C. § 1362(7) of the CWA.

11. The discharge of pollutants from Respondent's facility requires a permit issued pursuant to Section 402 of the CWA, 33 U.S.C. § 1342.

12. NDEQ granted NPDES permit number NE0043371 ("NPDES Permit"), to Respondent for discharges from the facility, groundwater remediation, and metal finishing to Stevens Creek, subject to compliance with conditions and limitations set forth in the NPDES Permit. The NPDES Permit became effective on September 1, 1999 and expired on January 31, 2003. The permit was extended by NDEQ until the current permit with more stringent effluent limitations became effective on December 18, 2007 ("Current NPDES Permit").

13. Part I., Section A. of the NPDES Permit sets daily maximum and monthly average final effluent limitations for Carbonaceous Biochemical Oxygen Demand ($CBOD_5$) and Total Suspended Solids (TSS), and requires monitoring for these parameters at least once per month using a representative 24-hour composite sample.

14. Part I., Section B of the NPDES Permit sets daily maximum and monthly average final effluent limitations for Fecal Coliform Colonies and Total Residual Chlorine, and requires monitoring for the parameters at least once per month using a representative grab sample.

15. Part I., Section B. of the NPDES Permit sets daily maximum water quality-based effluent limitations for Acute Toxicity, and requires monitoring for the parameter prior to submittal of a NPDES permit reissuance application using a representative 24-hour composite sample.

16. Part I., Section F of the NPDES Permit sets daily maximum and monthly average metal finishing effluent limitations for Total Zinc, and requires monitoring for the parameter at least once per quarter using a representative 24-hour composite sample.

17. Appendix A of the NPDES Permit incorporates Standard Conditions. Included within the Standard Conditions are the following provisions:

a. Section C.5 requires the permittee to retain electronically readable monitoring records and information.

b. Section D.2 requires the facility to use appropriate flow measurement devices that insure accuracy and reliability of measurements.

18. From June 18-21, 2007, EPA performed an inspection ("EPA Inspection") of the facility under the authority of Section 308(a) of the CWA, 33 U.S.C. § 1318(a), to evaluate compliance with its NPDES Permit and the CWA.

19. During the inspection, the EPA inspector made observations and documented his findings regarding Respondent's compliance with effluent sampling, analysis, reporting and recordkeeping requirements, as follows:

a. Respondent exceeded permit limitations for the following: $CBOD_5$, TSS, Fecal Coliform Colonies, Total Residual Chlorine and Total Zinc.

b. Respondent did not conduct an Acute Toxicity test prior to submitting a NPDES permit renewal application form.

c. Respondent did not retain records for samples collected at each active outfall.

d. Respondent did not report noncompliant effluent values that resulted in permit exceedances.

III. FINDINGS OF VIOLATION

20. The facts stated in Paragraphs 4 through 19 above are herein incorporated.

21. Based on a review of the Discharge Monitoring Reports, Respondent violated Part I, Section A of the NPDES Permit by failing to meet the permit limits for $CBOD_5$ and TSS during the months indicated in Table 1, below.

Table 1. Effluent Exceedances for Total Suspended Solids and Carbonaceous Biochemical Oxygen Demand

Month in Violation	TSS 30 Day Average Concentration (mg/L) Limit = 30 mg/L	TSS Daily Maximum Concentration (mg/L) Limit = 45 mg/L	$CBOD_5$ Monthly Average Concentration (mg/L) Limit = 25 mg/L
May 2005			33
February 2005	32		
April 2005	47	47	
June 2005	34		
October 2005	56	56	
January 2007	34		
February 2007	49	49	

22. Based on a review of the Discharge Monitoring Reports, Respondent violated Part I, Section B of the NPDES Permit by failing to meet the permit limits for Fecal Coliform Colonies and Total Residual Chlorine during the months indicated in Table 2, below.

Table 2. Effluent Exceedances for Fecal Coliform Colonies and Total Residual Chlorine

Month in Violation	Total Residual Chlorine 30 Day Average Concentration (mg/L) Limit = 0.24 mg/L	Fecal Coliform Colonies Monthly Average Concentration (mg/L) Limit = 200 CFU/100mL	Fecal Coliform Colonies Daily Maximum Concentration (mg/L) Limit = 400 CFU/100mL
August 2004		630	630
June 2004	0.31		
July 2004	0.36		
September 2004	0.25		
June 2005	0.25		
May 2006	0.38		
July 2006	0.40		
September 2006	0.32		

23. Respondent violated Part I, Section B of the NPDES Permit by failing to collect water quality based effluent samples for Acute Toxicity.

24. Based on a review of the Discharge Monitoring Reports, Respondent violated Part I, Section F of the NPDES Permit by failing to meet metal finishing effluent limits for Total Zinc during the months indicated in Table 3, below.

Table 3. Effluent Exceedances for Zinc

Month in Violation	Zinc 30 Day Average Concentration (mg/L) Limit = 1.48 mg/L	Zinc Monthly Average Concentration (mg/L) Limit = 2.61 mg/L
April 2006	2.26	
June 2007	2.90	2.90
October 2007	12.90	12.90
November 2007	4.39	4.39
December 2007	3.84	3.84

25. Respondent violated Appendix A, Section C.5 of the NPDES Permit by failing to retain records of sampling and monitoring data.

26. Respondent violated Appendix A, Section D.2 and 3 of the NPDES Permit by failing to measure flow with a device.

27. Respondent's violations of the terms and conditions of its NPDES Permit, as described in Paragraphs 20 through 26, above, are violations of Sections 301(a) and 402 of the CWA, 33 U.S.C. §§ 1311(a) and 1342, and implementing regulations.

IV. ORDER FOR COMPLIANCE

Based on the Findings of Fact and Findings of Violation set forth above, and pursuant to Section 309(a)(3) of the CWA, 33 U.S.C. § 1319(a)(3), Respondent is hereby ORDERED to take the actions described below.

28. *Monitoring and Reporting.* For a period of six (6) months following receipt of this Order, Respondent shall sample, analyze and report effluent discharges to EPA, in accordance with Paragraph 31 below, in addition to the sampling, analysis and reporting required by its Current NPDES Permit:

a. Using the sampling and analysis techniques required by the Current NPDES Permit, take a twenty-four hour composite sample for Zinc during hours of discharge on a weekly basis. The sample shall be taken during normal business operation, and the wastestream shall be representative of daily operations.

b. The results of all sampling and analyses required under Paragraph 28.a. shall be included in the Discharge Monitoring Report ("DMR"), as required by Part I, Section A.6 of the Current NPDES Permit.

c. Submit a copy of each monthly DMR to EPA, in accordance with Paragraph 31 below, at the same time the DMR is submitted to NDEQ.

d. Submit a copy to EPA, in accordance with Paragraph 31 below, of all samples taken for Zinc, TSS, and Total Residual Chlorine which are not reported on each monthly DMR.

e. Using the sampling and analysis techniques required by the Current NPDES Permit, complete sampling for Acute Toxicity. Submit the results to EPA in accordance with Paragraph 31 below, within sixty (60) days of receipt of this Order.

29. *Facility Operation and Maintenance*. Within sixty (60) days of receipt of this Order, Respondent shall provide a plan to EPA for review which demonstrates that Respondent has taken actions and instituted practices or plans to take action necessary to operate and comply with its Current NPDES Permit, the CWA and its implementing regulations, and applicable state requirements. The plan shall demonstrate that at least the following actions have been taken:

a. Development and implementation of a written plan to ensure proper operation and maintenance of the facility, including but not limited to: procedures that would either identify and eliminate the source of Zinc in order to meet the effluent limits, as required by Part I, Section C. of the Current NPDES Permit, or install treatment in accordance with 40 CFR § 433.16. Submit a timeline with milestones and end date to come into compliance with the effluent limit for Zinc which does not exceed six (6) months from receipt of this Order. In developing these policies and procedures, Respondent shall consult with qualified professionals, as well as appropriate state officials. Implementation of the plan shall become an enforceable part of this Order.

b. Development and implementation of a written plan to ensure proper operation and maintenance of the facility, including, but not limited to: procedures that would either reduce Total Residual Chlorine to meet Current NPDES Permit limits, as specified by Part I, Section A. or install treatment to meet the effluent limits for Total Residual Chlorine, Submit a timeline with milestones and end date to come into compliance with the effluent limit for Total Residual Chlorine which does not exceed six (6) months from receipt of this Order. In developing these policies and procedures, Respondent shall consult with qualified professionals, as well as appropriate state officials. Implementation of the plan shall become an enforceable part of this Order.

c. Development and implementation of a written plan to ensure proper operation and maintenance of the facility, including, but not limited to: procedures detailing the specific actions taken to correct all other effluent limit violations cited herein and explaining why such actions are anticipated to be sufficient to prevent recurrence of these similar violations.

d. Implementation of required recordkeeping and reporting practices, as identified in Paragraph 25 and 26 of this Order, previously mentioned.

30. *Certification.* Respondent shall include with each submittal to EPA the following certification, signed by a principal executive officer or a ranking elected official, or a duly authorized representative of that person:

> I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Submissions

31. All documents required to be submitted to EPA by this Order, shall be submitted by first class or overnight mail to:

Ms. Kimberly Harbour
Water Enforcement Branch
Water, Wetlands and Pesticides Division
U.S. Environmental Protection Agency - Region VII
901 North Fifth Street
Kansas City, Kansas 66101

32. A copy of documents required to be submitted to EPA by this Order, shall be transmitted by first class or overnight mail to:

Mr. Steve Goans
Nebraska Department of Environmental Quality
P.O. Box 98922
Lincoln, Nebraska 68509-8922

V. GENERAL PROVISIONS

Effect of Compliance with the Terms of this Order for Compliance

33. Compliance with the terms of this Order shall not relieve Respondent of liability for, or preclude EPA from initiating an administrative or judicial enforcement action to correct the violations described above, including, but not limited to, actions to protect the health or welfare of persons or the environment, or to recover penalties for any violations of the CWA, or to seek additional injunctive relief, pursuant to Section 309 of the CWA, 33 U.S.C. § 1319.

34. This Order does not constitute a waiver or a modification of any requirements of the CWA, all of which remains in full force and effect. The EPA retains the right to seek any and all remedies available under Sections 309(b), (c), (d) or (g) of the Act, 33 U.S.C. § 1319(b), (c), (d) or (g), for any violation cited in this Order. Issuance of this Order shall not be deemed an election by EPA to forgo any civil or criminal action to seek penalties, fines, or other appropriate relief under the CWA for any violation whatsoever.

Access and Requests for Information

35. Nothing in this Order shall limit EPA's right to obtain access to, and/or to inspect the facility, and/or to request additional information from Respondent, pursuant to the authority of Section 308 of the CWA, 33 U.S.C. § 1318 and/or any other authority.

Severability

36. If any provision or authority of this Order, or the application of this Order to Respondent, is held by federal judicial authority to be invalid, the application to Respondent of the remainder of this Order shall remain in full force and effect and shall not be affected by such a holding.

Effective Date

37. This Order shall be effective on the date it is signed by EPA. All time periods herein shall be calculated from the Effective Date unless otherwise provided in this Order.

Issued this 28th day of February, 2008.

Betty J. Berry

for William A. Spratlin, Director
Water, Wetlands and Pesticides Division
U.S. Environmental Protection Agency - Region VII
901 North Fifth Street
Kansas City, Kansas 66101

Audrey B. Asher

Audrey B. Asher
Senior Assistant Regional Counsel
U.S. Environmental Protection Agency - Region VII
901 North Fifth Street
Kansas City, Kansas 66101

KR

CERTIFICATE OF SERVICE

I certify that on the date noted below, I hand delivered the original and one true copy of this Findings of Violation and Administrative Order for Compliance to the Regional Hearing Clerk, United States Environmental Protection Agency, 901 North Fifth Street, Kansas City, Kansas 66101.

I further certify that on the date noted below I sent a copy of the foregoing Order for Compliance by first class certified mail, return receipt requested, to:

Terry Martin, Vice President
Telex Communications, Inc.
12000 Portland Avenue South
Burnsville, Minnesota 55337; and

Patrick Rice
Nebraska Department of Environmental Quality
P.O. Box 98922
Lincoln, Nebraska 68509-8922; and

2/26/08
Date

Audrey B. Asher

REPORT OF COMPLIANCE SAMPLING INSPECTION
AT
TELEX COMMUNICATIONS , INC. (BOSCH COMMUNICATIONS SYSTEMS)
LINCOLN, NEBRASKA
NPDES PERMIT NO. NE0043371
By
U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION VII
Environmental Services Division

JUNE 18-21, 2007

INTRODUCTION

At the request of the Region VII Water, Wetlands and Pesticides Division, Water Enforcement Branch (WWPD/WENF), a Compliance Sampling Inspection (CSI) was conducted at the Bosch/Telex Communications, Inc. manufacturing facility in Lincoln, Nebraska on June 18-21, 2007. The inspection was conducted under the authority of Section 308 of the Clean Water Act, as amended, and in accordance with EPA Region VII Standard Operating Procedures for Compliance Sampling Inspections (ENSV SOP No. 2332) and related SOPs cited in this report. This narrative report and the attachments present the results of this inspection.

PARTICIPANTS:

Bosch Communications Systems/Telex Communications, Inc.:
- Terry Martin, Vice President, North American Operations, Telex Communications, Inc.
- Delton Bolles, Maintenance Technician
- Heidi Schlabach, Human Resource Manager
- Stan Draper, Electrician
- Harold Schuey, Paint Shop Supervisor

HWS Consulting Group:
- Greg A. Lang, P.G., Project Manager

U.S. Environmental Protection Agency (EPA):
- Peter M. Green, Environmental Scientist

FACILITY DESCRIPTION:

The Bosch/Telex manufacturing facility is located on the south side of Nebraska Route 6 (Cornhusker Highway) in an industrial area of northeast Lincoln (see topographic map and aerial photo-Attachment 1). The original plant was built in 1964 and purchased by Telex in 1978 (from HyGain Industries). The plant has undergone several expansions and was purchased by the Bosch Group in June 2006. The Lincoln plant employs approximately 250 persons (one shift, 5 days per week) and manufactures electronic communications devices (e.g., headsets, antennas, microphones, intercom and radio dispatch equipment) for broadcasting, aviation and military applications. The major manufacturing processes include painting and assembly.

There are three NPDES-permitted outfalls. Outfall 001 is the discharge from the on-site activated sludge (Smith & Loveless) package plant. The plant discharges through a ~150 foot long, 6-inch PVC pipe into Stevens Creek west of the plant. Outfall 004 is the discharge to Stevens Creek from a groundwater pump-and-treat system on the south side of the plant. Outfall 005 is the discharge from a 5-stage washer system in the paint department (see plant layout-Attachment 2). Rinsewater from this system (regulated under the metal finishing category) drains to a sump and is pumped to the on-site WWTF (Outfall 001). (Outfalls 002 and 003 are no longer active. These numbers had been assigned to cooling water discharges from an injection molding operation which has been removed from the plant).

The City of Lincoln has plans to extend sewers into this area by constructing a trunk sewer alongside Stevens Creek.

There are three wet paint booths and one powder-coat booth. Parts to be painted (mostly aluminum) are first treated through the automated wash rack system, which has the following stages: alkaline detergent, rinse, phosphoric acid solution (see MSDS sheet-Attachment 3), rinse, clear rinse. The rinse water is pretreated through a reverse osmosis system. The discharge from the wash rack (Outfall 005) is regulated under the categorical limits for metal finishing operations (40 CFR Part 433.16). It is pumped, along with sanitary wastewater from the plant restrooms, to the on-site activated sludge package plant.

The onsite WWTF was constructed in 1977. Attachment 4 is a copy of part of the original design drawings. The plant consists of a ~16,000-gallon aeration basin with fine bubble diffusers, a rectangular clarifier, a 4500-gallon sludge digester and a chlorine contact basin.

The groundwater pump-and-treat system, an air stripper, was installed in 1989-1990 to remediate groundwater contaminated with cleaning solvents. The water is pumped from three on-site wells, treated and discharged (currently at the rate of 0.39 MGD) via Outfall 004.

PROCEDURES:

I arrived unannounced at the facility in the afternoon of Monday, June 18, 2007. Since Mr. Bolles had left for the day, I agreed to return the following morning. When I returned, I met with Messrs. Lang, Bolles, Schlabach and Martin. I introduced myself, presented my credentials, and explained the purpose and scope of the inspection. I installed automatic composite samplers at Outfalls 001 and 005. I then discussed plant operations and compliance issues with Messrs. Lang and Bolles. Based on their information, I completed the NPDES Water Compliance Inspection Report (Attachment 5) and Region VII Mulitimedia Screening Checklist (Attachment 6). The following day, I retrieved the composite samples from the samplers. I also reviewed Discharge Monitoring Reports for the last year and discussed the recent compliance history. Messrs. Lang, Martin and Bolles escorted me on walk-through inspections of the production facility, the WWTF and the hazardous waste storage area. I returned the next day, June 21, to retrieve additional samples, and met with Messrs. Lang, Bolles and Martin to discuss the findings of the inspection. Mr. Martin signed the attached Confidentiality Notice (Attachment 7).

Sampling Procedures: I used an Isco Model 1380 HS automatic composite sampler to collect 24-hour composite samples of the effluent from the onsite WWTF. I suspended a weighted length of new tygon tubing in the chlorine contact basin (at ½-depth) and connected the other end to the sampler pump. I programmed the sampler to pump an aliquot every 30 minutes into a clean acid-rinsed nalgene collection bottle, which was packed in ice. I also collected a grab sample for analysis of oil and grease and measured the pH and temperature using a field meter. The following day, I removed the bottle, thoroughly mixed the contents and poured them into clean, pre-labelled cubitainers. After adding appropriate preservatives, I placed these on ice in an ice chest with field sheets and chain-of-custody documentation, sealed it and shipped it to the EPA Region VII laboratory by overnight express. (A grab sample was again taken for oil and grease and pH analyses). I re-started the sampler and repeated this procedure the following day.

For Outfall 004, I installed an Isco Model 3700 automatic composite sampler alongside the wash rack. I suspended a length of new tygon tubing into the floor pit where the rinsewaters discharge. I programmed this sampler to collect an aliquot every 12 minutes beginning at 7 am and stopping at 11 am. (These were the hours of operation of the wash rack during the two days I sampled). At around noon each day, I retrieved the composite samples and also used the sampler to pump a grab sample from the pit. Mr. Bolles read the meter each day and provided total discharge volumes for the day.

On Wednesday afternoon, June 20, I obtained a grab sample from the pump-and-treat system, as it discharged to Outfall 004, and measured the pH and temperature using a field meter.

I followed Region VII standard operating procedures in the collection, packaging, transportation and handling of the samples (see EPA Region VII ENSV SOP No's. 2333-Field Measurements, 2334-Sample Collection and Sample Design, and 2420-Sample Management).

FINDINGS AND OBSERVATIONS:

1. NPDES Permit: The last NPDES permit for this facility was issued on September 1, 1999, and expired in 2003. Telex submitted an application for renewal of the permit in May 2002. (Discharge authorization has been administratively extended until the new draft permit has been finalized by NDEQ). As a condition of the expired permit, a single acute toxicity test was to be conducted on the plant effluent. Mr. Bolles could not recall whether one had been done, and had no record of it. I inquired with NDEQ, who reviewed the facility files. Based on this review, there were no toxicity test results submitted by Telex between 1999 and 2007.

2. EPA Sample Results: Laboratory analysis results from the EPA Region VII laboratory are attached (Attachment 8). The first day's composite sample from the wash rack (Outfall 005) exceeded the daily maximum categorical discharge limit for zinc (2.61 mg/L). The concentration reported by the EPA laboratory was 3.00 mg/L. This was corroborated by the results for the split sample, reported by Midwest Laboratories as 2.90 mg/L. The average concentration for *both* days (EPA lab) was 2.18 mg/L, which exceeds the monthly average permit limit (1.48 mg/L).

I discussed these results with Mr. Bolles by telephone on September 11, 2007. He told me that, following receipt of the lab results, Telex investigated the possible sources of zinc. Certain plated parts, suspected of being the source of contamination, have been eliminated from treatment on the wash rack. (The suppliers of these parts agreed to surface-treat these in-house prior to shipping them out).

3. Compliance History: Attachment 9 contains data retrieved from EPA's Permits and Compliance System (PCS) database for the period from January 2005 through June 2006 (the last month for which data was entered into the PCS system). I also reviewed data, provided by Mr. Bolles, for the last half of 2006. The following observations were made:

Outfall 001 (WWTF): During 2005, the monthly average permit limit for TSS for Outfall 001 (30 mg/L) was exceeded four times and the daily maximum limit (45 mg/L) was exceeded twice, with a high of 56 mg/L (October 2005). The monthly average permit limit for CBOD5 (25 mg/L) was slightly exceeded in May 2005 (33 mg/L).

In 2006, there were no exceedances reported for TSS or CBOD. Effluent concentrations reported ranged from 7 to 27 mg/L for TSS, and 2-3 mg/L for CBOD. Oil and grease was generally below the detection limit.

Monitoring of effluent fecal coliform and total residual chlorine (TRC) concentrations is required during the disinfection season (the months of May through September). During 2005 and 2006, the monthly average permit limit for residual chlorine (0.24 mg/L) was exceeded in 7 of the 10 months when monitored was required, with concentrations ranging from 0.24 to 0.40 mg/L. The chlorination system used at Telex is a pump which feeds Clorox solution into the contact chamber (from a 1-gallon bottle) at a steady rate. The concentration of TRC in the effluent varies, accordingly, inversely with the flow rate. (The difference between 0.24 mg/L and 0.40 mg/L represents a difference of about 5 mL per hour in the Clorox feed rate).

Following my inspection (on September 11), when I expressed my concern about the TRC exceedances, Mr. Bolles told me that the chlorine feed system had been improved to allow more precise control of the residual chlorine. He said that the new system is working well and that current effluent TRC levels are within permit limits. Because the new permit is expected to contain lower TRC limits, Telex is currently investigating alternative disinfection technologies, including ultraviolet disinfection.

Outfall 004: Flows reported from the onsite pump-and-treat system were generally 0.21 or 0.22 MGD. In six of the 18 months, however, the flow was reported as 0.021 or 0.022 MGD, a factor of 10 lower. Mr. Bolles confirmed that the rate of discharge is constant and that the latter numbers had been incorrectly reported or entered into the database with a decimal error. Recently the scale was cleaned out of the pumps, and they are discharging at the rate of 0.39 MGD (271 gpm), with two of the three wells being pumped.

Outfall 005: The NPDES permit requires quarterly monitoring of the rinse water discharge from the wash rack. Upon review of the last 2 years' monitoring data, I observed that the daily maximum permit limit for zinc (2.61 mg/L) was exceeded in the sample collected in July 2006 (when a concentration of 9.71 mg/L was reported). Also, the monthly average limit (1.48 mg/L) was exceeded, in April 2006 (when 2.26 mg/L was reported). When I asked Messrs. Bolles and Lang about the source of zinc, they said they did not know. At the time, they were not aware of any zinc parts being washed. As discussed in Section 2 above, several possible sources have now been identified and eliminated.

4. Operation and Maintenance: NDEQ officials visited the plant in April, 2007 (private communication with John Schauer). They raised concerns about lack of maintenance and the condition of the activated sludge plant. Following that visit, Telex made improvements and repairs. The WWTF control building was equipped with new lighting, electrical outlets and a new exhaust fan. New process control equipment was installed. The aerators in the aeration basin were replaced, and the skimmer pump was replaced. One of the blowers was also replaced (the other blower is only about a year old). A high level alarm was installed, a secure door was installed, and the laboratory centrifuge and sludge judge were replaced.

Mr. Bolles, who holds a Grade IV wastewater certificate, operates the WWTF. In his absence, other staff monitor the blower operation and alarm status. Influent loading to the WWTF is very low on weekends, when the production plant is shut down.

The effluent flow meter, consisting of a 45° V-notch weir and a bubbler system, ceased functioning on May 7, 2007. Mr. Bolles said that he has ordered a new ultrasonic system, which he expects to be available for installation in July. Until a functional flow meter is available, discharge volumes are being estimated, by adding 2500 gpd (250 employees x 10 gallons of sanitary wastewater per day) to the measured flow through the wash rack (plus an additional 50% to account for RO reject wastes). The flows reported during this inspection were calculated this way.

6. Sampling and Analysis: Mr. Bolles showed me the sampling and pH records he keeps for the

NPDES discharges. These were on loose-leaf sheets. I recommended to him that all official records be kept in a bound book to ensure data integrity. Details of sample collection, he said, are recorded on the laboratory chain-of-custody documents which he sends to Midwest Laboratories with the samples. He does not get a copy of these back from the laboratory. I advised him to request a copy of this document in order to fulfill the NPDES record-keeping requirements under 40 CFR Part 122.41(j)(3).

7. Post-Inspection Follow-up: As discussed above, I talked with Mr. Bolles by telephone on September 11. He told me that Telex has taken steps to address several of the issues identified in this report. These included: elimination of suspected zinc sources in the rinsewater from the 5-stage washer system, and upgrade of the chlorine disinfection system to reduce or eliminate exceedances of the permit limits for TRC. With the assistance of HWS Consulting Group, they are exploring future treatment options to comply with the new permit, which they are expecting to be issued in October. These options include addition of an ultraviolet disinfection system, and discharging to the City sewer when the option becomes available.

CONCLUSIONS AND RECOMMENDATIONS

1. The effluent samples collected from the wash rack (Outfall 005) during this inspection exceeded both the monthly average and daily maximum permit limits for zinc. (Two of four effluent samples reported last year were also in violation for zinc). The facility has identified potential sources of zinc contamination and stopped putting those parts through the wash rack. The facility should continue to monitor this wastestream closely for zinc to ensure that the problem does not recur.

2. The effluent from the onsite activated-sludge treatment plant slightly exceeded limits for CBOD and TSS during 5 months in 2005. There were no exceedances reported in 2006 for either parameter. The permittee has made significant improvements to the WWTF since NDEQ inspected the plant in April. Although it now appears to be performing adequately, the plant is 30 years old. Therefore careful monitoring and maintenance will be necessary for continued operation in compliance with permit limits.

3. The permittee is reminded of the reporting requirements of their NPDES permit. Any violation of a maximum daily discharge limitation must be reported orally to NDEQ within 24 hours. Written notification of all permit exceedances (including monthly average violations) must be made within 5 days of the time that the permittee becomes aware of them (e.g., on a NDEQ Noncompliance Report form).

4. This facility's NPDES permit, which was issued in 1999 and expired in 2003, required the facility to conduct an acute toxicity test on the plant effluent (Outfall 001), before applying for renewal of the permit. It appears that this test was never conducted.

When the new permit is issued, Telex is advised to review carefully the terms and conditions of the permit. They should arrange to have the toxicity test conducted (if it is called for in the new

permit).

The NPDES permit should be regarded as the primary source of guidance for monitoring and sample analyses. (Reliance on standard discharge monitoring report forms can sometimes result in parameters being analyzed more or less often than the permit actually requires).

5. The permittee should retain a copy of all documents pertaining to sample collection (e.g., start and stop times, etc.; see 40 CFR Part 122.41[j][3]). If this is recorded on the chain of custody sent to the laboratory, a copy should be retained for your records. Alternatively, the permittee may request that the laboratory provide a copy along with the sample results.

In the interest of demonstrating data integrity and continuity, all data generated for NPDES monitoring (e.g., pH measurements and calibration logs) should be kept in a bound log book.

Peter M. Green
Environmental Scientist
Date: 09/12/2007
Activity Number: WGP215

Attachments:

1. Topographic Map and Aerial Photos of Plant Vicinity (www.terraserver.com; 3 pages).
2. Floor Plan of Building with Location of Wash Rack
3. Material Safety Data Sheet: Fremont 758 (Phosphatizing agent) (6 pages)
4. Copy of 1977 Design Drawings for Smith & Loveless Activated Sludge Plant (2 pages)
5. NPDES Water Compliance Inspection Report (EPA Form 3560-3; 4 pages)
6. Region VII Multimedia Screening Checklist (2 pages)
7. Signed Confidentiality Notice
8. EPA Sample Analysis Results for Samples Collected during EPA Inspection (9 pages)
9 Data Retrieval from EPA Permits & Compliance System (PCS) Database; January 2005 through June 2006 (10 pages).